

### **REMARKS**

This responds to the Office Action mailed on June 21, 2004.

Claims 1–4, 6–11, 13, 15, 17–19 and 21 are amended, no claims are canceled or added; as a result, claims 1–21 remain pending in this application.

#### **Claim Objections**

Claims 1, 5, 8, and 12 were objected to because the word "remain" should be inserted before the word "unchanged". Applicant respectfully disagrees. The Examiner's suggested change would change the meaning of those claims. For example in claim 1 at line 6 Applicant properly calls for "holding values...unchanged..." Applicant is using holding as a gerund rather than as an adjective further describing values.

Claims 4 and 11 were objected to because the word "and" should be deleted from line 2 of each. Claims 4 and 11 have been amended to make this correction.

#### **§112 Rejection of the Claims**

Claims 3-7, 10-14 and 17-21 were rejected under 35 USC § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

Without conceding whether the rejection is correct, Applicant has amended claims 3 and 10 to remove the language the Office Action deemed indefinite so that the rejection has been resolved as to claims 3 and 10 as well as claims 4–7 and 11–14.

Applicant also amended claim 17 to delete the "proud to" language which was unnecessary to the claim.

#### **§102 Rejection of the Claims**

Claims 1-21 were rejected under 35 USC § 102(e) as being anticipated by Chung et al. (U.S. 6,446,230). Applicant respectfully traverses the rejection. Applicant respectfully submits that the claims are distinguishable over Chung for the reasons argued below.

Chung 6,446,230

Chung is not prior art to the present application. Applicant reserves the right to swear behind it at a later date. Nevertheless, Applicant respectfully submits that the claims are distinguishable over Chung for the reasons argued below.

Chung relates to a compliance enabler mechanism for allowing testing of non-compliant embedded boundary-scan cells to enable a device being tested to function as an IEEE-standard 1149.1 compliant part. Chung relates to two embodiments of apparatus<sup>1</sup> for enabling compliance with the IEEE boundary-scan standard 1149.1 and provides test methodologies<sup>2</sup> applicable to timing critical high (above 200 MHz) speed clock designs which comply with the IEEE standard 1149.1.

Independent Claims 1 and 8

Claim 1 and claim 8 recite: “holding values contained in the plurality of flip-flops in the device core unchanged when the synchronous scan command signal is received by the device core;” (emphasis added). Applicant is unable to find in Chung disclosure of such a function. In support of the rejection as to this aspect of the claims, the Office Action merely states:

“When the synchronous scan command (b\_capture) signal is received by the device core internal scan cell (612) of core logic 304, the holding values stored in flip flop 610 remain unchanged until the (sys\_clk) signal clocks the flip-flop.”<sup>3</sup>

Applicant sees nothing in Chung which provides the functionality claimed in the portions of claims 1 and 8 quoted above. That language describes a condition where the values contained in flip flops in the device core are frozen by the scan module while the contents of the flip flops are read out. Chung, which relates to boundary scans, does not appear to involve freezing the operation of circuits in the device core by the scan module<sup>4</sup>.

Further, the Office Action asserts that “transmitting the values contained in the plurality of flip flops” is met in Chung by transmitting the values of the output of flip flop 610 to the

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<sup>1</sup> Chung, Abstract

<sup>2</sup> Chung, column 3, lines 35-38

<sup>3</sup> Office Action page 4, lines 16-18.

<sup>4</sup> It is respectfully noted that the Office Action reads Chung on claim 1 in a manner where signal b\_capture is cited at one point as ‘external event trigger signal’ of the claim element; then, inconsistently, as “synchronous scan command signal.”

external test equipment.<sup>5</sup> Applicant respectfully notes that the flip flops in claim 1 are in the core device undergoing troubleshooting rather than residing in the scan module as does the flip flop 610 relied upon in the Office Action.

As laid out in the two paragraphs above, it is clear that Chung does not show each and every element of claims 1 and 8 laid out in the manner called for in those claims.

Reconsideration and allowance of claims 1 and claim 8 is respectfully requested. Claims 2- 7 which are dependent from claim 1, include all of the features of claim 1 and are therefore patentable over Chung for at least the same reason. Claims 9- 14 which are dependent from claim 8, include all of the features of claim 8 and are therefore patentable over Chung for at least the same reasons.

*Independent Claim 15*

The Examiner not applied the cited Chung patent to the elements of claim 15.

Claim 15 recites a scan module to “receive the event trigger signal and transmit the contents of the plurality of flip-flops” where the flip-flops are “contained within a device in a computer system.” As explained above, when the Office Action applied Chung, it spoke only of transmitting the “values of the output of flip-flop (610)” rather than “contents of a plurality of flip flops” contained within a device in a computer system as claim 15 requires.

Claims 16 through 21 are dependent upon claim 15 and are allowable for at least the same reasons as claim 15.

Reconsideration and allowance of claims 1- 21 is respectfully requested for the reasons contained herein.

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<sup>5</sup> OA, page 4, last three lines.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney ((612) 373-6970) to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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